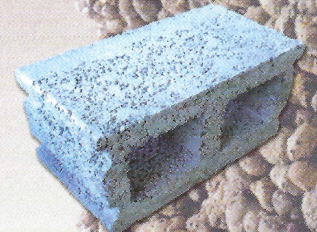
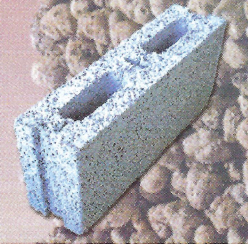
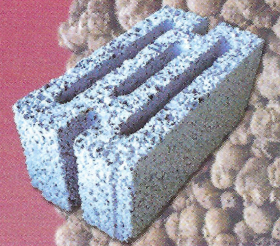
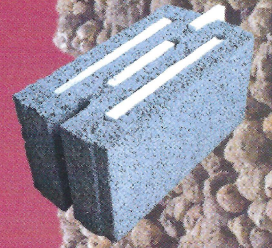


Light Weight Block

- ❖ Low weight by volume
- ❖ Permanent thermal insulation
- ❖ Excellent fire-resistance
- ❖ Easy to apply
- ❖ Very good compressive strength
- ❖ Low co-efficient of thermal expansion
- ❖ Low modulus of elasticity
- ❖ Excellent sound absorption factor
- ❖ Excellent noise reduction coefficient (despite low density)
- ❖ Low water absorption
- ❖ Government Approved





What is Light Expanded Clay Aggregate ?

Light Expanded Clay Aggregate is an aggregate made of expanded clay which is produced in rotary kiln at the temperature about 1200 degree centigrade. Yielding gases which are expanded, from thousand of small bubble like spaces inside the clay and when materials become cold, these bubbles remain and make a coarse surface.

Leca Properties

Light weight

Light weight blocks are much lighter and its low density reduces permanent load. It also means easier handling and fixing which will reduce the labour charges combines compressive strength and light weight. Its very low elasticity module is half of that of a heavy concrete which greatly reduces internal tensions. Its linear co-efficient of thermal dilatation is 30% lower than the normal concrete.

Thermal comfort

Light weight blocks have an above average thermal insulation coefficient. Their calorific capacity is twice that of cellular concrete.

Fire Resistance

Thanks to their refractory character, Light weight pellets offer excellent protection against fire. A wall of 15cm Light weight blocks can withstand fire for over 3 hours and 20cm Light weight blocks resist minimum 6 hours.

Compression Strength

Thanks to their compression strength, Light weight blocks are perfect for the inner leaves walls off villas, apartments and commercial buildings.

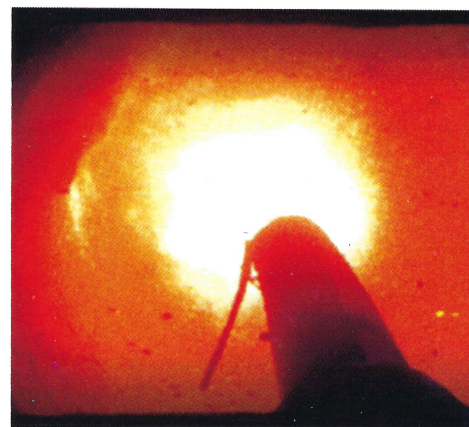
Acoustic Comfort

Light weight partition walls have exceptional acoustic insulation qualities, With a mass that is 2 times smaller, an Light weight block wall provides the same level of acoustic insulation as heavy concrete blocks.

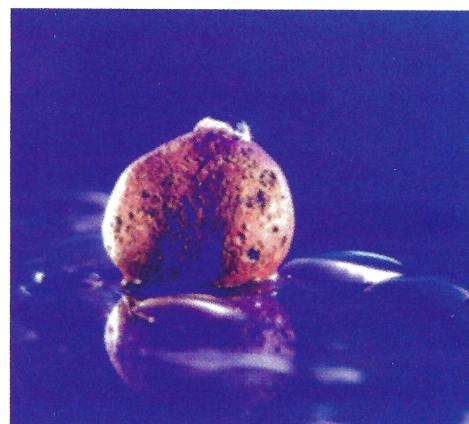
Light weight blocks have a high sound absorption coefficient. Depending on frequency and structure, they absorb over 50% of the noise. Light weight blocks respond perfectly to the acoustic demands of sport centers, theatres, swimming pools.

Appearance

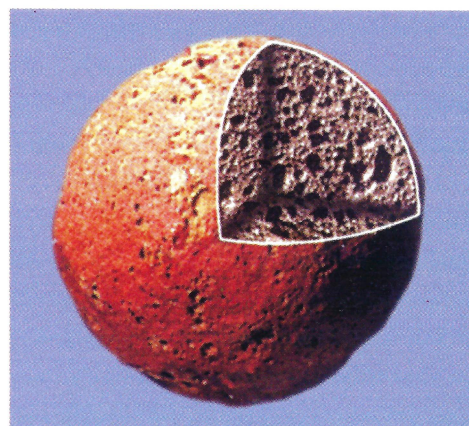
Light weight blocks have a rough texture, and are normally plastered. Because of this open texture and the low water absorption of the blocks, there is an extremely good adhesion / bond between block and plaster. There is no need for using a bond coat.



Inner view of Rotary Kiln for making leca aggregates.

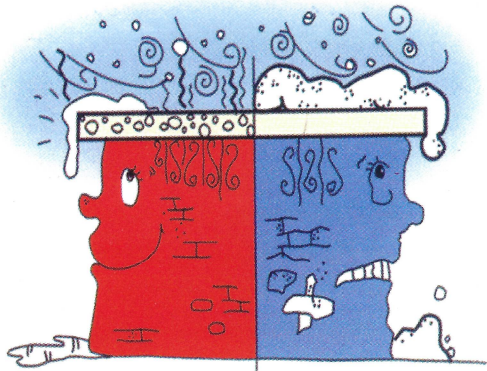


Outer appearance of leca aggregates

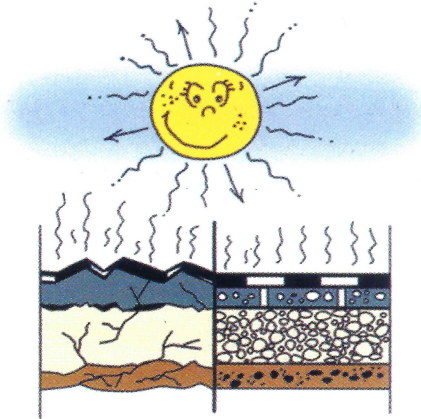


Inner section of leca aggregates

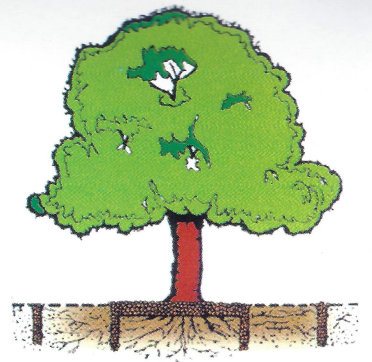
Leca Aggregate in agriculture



In winter keep your home warm & insulated with leca



Roof levelled with leca tolerates heat readily in summer.



Selection of a new plant is not merely a function of beauty. Technical factors for the plant growth should be considered important as well.

Leca can meet this need

Leca aggregates prepare the best bed for growth of plants

Because of their cellular texture leca aggregates adjust low or high water fluctuations. Light weightness, structural stability, and free of pesticider / sterilizing - plan are of leca properties which lead to a very suitable condition for agriculture and plant growth.



Leca Advantages comparing to soil

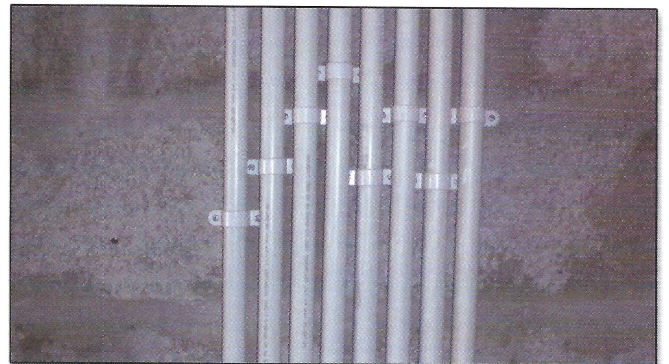
High porosity.

Because of high thermal processing it is free from any pest or disease.

Because of structural stability it is incompressible. It has high and durable life span. High capability in storing water. It becomes more fertile gradually. Movement is easy due to it's light weight. It's cleaner to work with leca rather than with farm soil.



Easy to apply Rollbolts, Nails, Screw etc.



Doesn't required any special glue or chemical for fixing



Fire Resistant

Technical Data for Leca Light Weight Block

Description	Specification
Leca Thermal Conductivity at 40 C ⁰	0.210 W/m C ⁰
Leca Heating Resistance at 40 C ⁰	1.454 m ² C ⁰ / W
Water Absorption	5 %

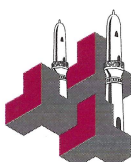
Size Available	4" - Hollow 400x100x200mm	6" - Hollow 400x150x200mm	8" - Hollow 400x200x200mm	8" - Slotted with polystyrene* 400x200x200mm	9" Slotted* 400x225x200mm
Average Weight Per Block (kg)	6.000	8.000	10.000	11.000	13.500
Average Block Density (Kg/m ³)	750	650	650	750	750
Compressive Strength (N/mm ²)	3.5	3.5	3.5	4.00	4.00
Fire Resistance (Hour)	2.5	2.5	3.0	3.0	3.00
Thermal Resistance of Block [R-Value : m ² C ⁰ / W]	0.711	0.780	0.865	2.586	1.163

Ministry of Electricity & Water Approval - Ref. No.: TISW0801 17/03/2008

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المناراتين

شركة المناراتين ومجموعة علي الشعب ذ.م.م

في خدمة المملكة منذ ٥٠ عاماً

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